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EXAMINER	
YIGDALL, MICHAEL J	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/679,870	WILLIAMS ET AL.	
	Examiner	Art Unit	
	Michael J. Yigdall	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2008*.

2a)☒ This action is FINAL. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,9,11-13,20-24,26,27 and 31-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9,11-13,20-24,26,27 and 31-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to Applicant's reply filed on November 17, 2008. Claims 1, 9, 11-13, 20-24, 26, 27 and 31-34 are now pending.

Response to Amendment

2. The rejection of claim 27 under 35 U.S.C. § 101 is withdrawn in view of Applicant's amendment.

Response to Arguments

3. Applicant's arguments have been fully considered but they are not persuasive.

Applicant contends that Shulman and Sojoodi do not teach "invoking software for a measurement device in order to determine one or more hardware resources of the measurement device" such as recited in claim 1, as amended (remarks, page 10). Specifically, Applicant contends that in Sojoodi, the VISA interface types of the instrument are not hardware resources of the instrument (remarks, page 11).

However, the examiner does not agree with Applicant's conclusion. The instruments described in Sojoodi are hardware devices comprising hardware resources (see, for example, column 4, lines 25-40). The "hardware I/O interface" of the instrument, for example, represents a hardware resource of the instrument. In other words, "querying the object manager for a list of classes of the instrument, where the classes correspond to possible VISA interface types of the instrument" (see, for example, column 7, lines 3-17) represents querying the object manager for a list of one or more hardware resources of the instrument. Thus, Sojoodi suggests "invoking

software for a measurement device in order to determine one or more hardware resources of the measurement device" to those of ordinary skill in the art.

Applicant contends that Shulman and Sojoodi do not teach "in response to user input requesting to select a parameter value …" such as recited in claim 1 (remarks, page 11). Specifically, Applicant contends that in Shulman, the selection menu is displayed automatically without the user explicitly requesting to select a parameter value (remarks, page 12).

However, as Applicant acknowledges (remarks, page 12), Shulman describes that the selection menu allowing the user to select a parameter value is displayed in response to the user pressing the comma key (see, for example, column 12, lines 17-30). The examiner submits that the user pressing the comma key represents user input requesting the display of the selection menu. Moreover, Shulman clearly describes that the user could "manually request a display of the menu items" (see, for example, column 13, lines 14-18). Thus, Shulman teaches displaying the selection menu "in response to user input requesting to select a parameter value."

Applicant contends that the examiner "does not provide any rationale of a suggestion or motivation to combine the reference teachings" (remarks, page 13).

In response, Applicant is respectfully reminded that a rigid application of the "teaching, suggestion, or motivation" test is not necessary to support a conclusion of obviousness. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (U.S. 2007). As set forth in the Office action, a person of ordinary skill in the art could, with predictable results, apply the teachings of Shulman to a programming environment such as described in Sojoodi. A reason that would have prompted such a combination is to enhance the programming environment of Sojoodi with the

statement building assistance described in Shulman (see, for example, the abstract). Therefore, the claimed subject matter would have been obvious to those of ordinary skill in the art at the time the invention was made.

Applicant contends that there is no teaching in the references of "automatically [configuring] the first node with the first parameter value ..." such as recited in claim 31 (remarks, page 13). Specifically, Applicant contends that modifying a function call written in a text-based programming language such as described in Shulman is not the same as automatically configuring a node in a block diagram of a graphical program (remarks, pages 13-14).

However, the examiner respectfully points out that the test for obviousness is not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Shulman teaches automatically configuring a function call with a parameter value (see, for example, FIG. 9 and column 12, lines 33-40). In Sojoodi, such function calls are represented as nodes in a block diagram of a graphical program (see, for example, FIG. 6 and column 5, lines 11-42). Thus, the combined teachings of the references would have suggested "automatically [configuring] the first node with the first parameter value" to those of ordinary skill in the art.

Claim Rejections under 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 9, 11, 13, 20-24, 26, 27, 31 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,026,233 to Shulman et al. (already of record, "Shulman") in view of U.S. Patent No. 5,784,275 to Sojoodi et al. (already of record, "Sojoodi").

With respect to claim 1 (currently amended), Shulman teaches a computer-readable memory medium storing program instructions (see, for example, FIG. 1 and the abstract) executable to:

in source code of a software program, display a first function call written in a text-based programming language that can be compiled into executable code, wherein the first function call takes a first parameter (see, for example, FIG. 7 and column 11, lines 51-63, which shows displaying in such source code a first function call 732 that takes a first parameter 742);

Shulman further teaches that the program instructions are executable to programmatically determine one or more valid parameter values for the first parameter of the first function call (see, for example, column 11, lines 38-50, which shows one or more valid parameter values for the first parameter 742, and column 17, lines 27-38, which shows programmatically determining such values), but does not explicitly describe invoking software for a measurement device in order to determine one or more hardware resources of the measurement device, wherein each of the one or more valid parameter values represents a respective hardware resource of the one or more hardware resources.

Nonetheless, in an analogous art, Sojoodi teaches a programming environment for creating a software program to control an instrument or measurement device (see, for example,

the abstract). The instrument or measurement device comprises one or more hardware resources (see, for example, column 4, lines 25-40). Sojoodi further teaches invoking software for the measurement device in order to determine one or more hardware resources (see, for example, column 7, lines 3-17). One or more valid parameter values represent the hardware resources in function calls (see, for example, column 5, lines 23-51).

A person of ordinary skill in the art could, with predictable results, apply the teachings of Shulman to a programming environment such as described in Sojoodi, such that the source code described in Shulman represents a software program for controlling an instrument or measurement device. A person of ordinary skill in the art would have been prompted to enhance the programming environment of Sojoodi with the teachings of Shulman. Thus, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman so as to invoke software for a measurement device in order to determine one or more hardware resources of the measurement device, wherein each of the one or more valid parameter values represents a respective hardware resource of the one or more hardware resources.

Shulman in view of Sojoodi further teaches or suggests that the program instructions are executable to:

position a cursor on the first function call displayed in the source code in response to user input (see, for example, FIG. 7 and column 11, lines 51-63, which shows positioning a cursor 733 on the first function call 732 in the source code);

in response to user input requesting to select a parameter value, determine that the cursor is positioned on the first function call and display a graphical user interface for selecting a

parameter value for the first parameter of the first function call, wherein the graphical user interface visually indicates the one or more valid parameter values (see, for example, FIG. 8 and column 12, lines 17-30, which shows displaying a graphical user interface 850 for selecting a valid parameter value in response to such user input, and column 13, lines 14-18, which further shows such user input);

receive user input to the graphical user interface to select a first parameter value from the one or more valid parameter values, wherein the first parameter value represents a first hardware resource of the measurement device (see, for example, FIG. 9 and column 12, lines 33-40, which shows receiving user input to select a parameter value 910); and

automatically modify the first function call displayed in the source code of the software program by including the first parameter value in the first function call in response to the user input selecting the first parameter value, wherein automatically including the first parameter value in the first function call aids a user in modifying the first function call to reference the first hardware resource of the measurement device (see, for example, FIG. 9 and column 12, lines 33-40, which shows automatically modifying the first function call 732 to include the parameter value 910).

With respect to claim 9 (currently amended), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein the measurement device comprises a GPIB device;

wherein said determining the one or more hardware resources of the measurement device comprises determining one or more hardware resources of the GPIB device;

wherein the first parameter value represents a first hardware resource of the GPIB device;

wherein said automatically including the first parameter value in the first function call comprises automatically configuring the first function call with a reference to the first hardware resource of the GPIB device.

Specifically, Sojoodi describes that the instrument or measurement device comprises a GPIB device (see, for example, column 4, lines 25-40).

With respect to claim 11 (currently amended), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein the measurement device comprises a DAQ device;

wherein said determining the one or more hardware resources of the measurement device comprises determining one or more hardware resources of the DAQ device;

wherein the first parameter value represents a first hardware resource of the DAQ device;

wherein said automatically including the first parameter value in the first function call comprises automatically configuring the first function call with a reference to the first hardware resource of the DAQ device.

Specifically, Sojoodi describes that the instrument or measurement device comprises a DAQ device (see, for example, column 4, lines 25-40).

With respect to claim 13 (previously presented), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests that the program instructions are further executable to:

receive user input specifying filtering criteria for the parameter values (see, for example, column 11, lines 6-30, which shows specifying filtering criteria for the parameter values);

wherein the graphical user interface visually indicates only a subset of the valid parameter values, wherein the subset is determined based on the specified filtering criteria (see, for example, column 11, lines 6-30, which shows indicating only a subset of the valid parameter values based on the filtering criteria).

With respect to claim 20 (previously presented), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein the source code is displayed in a first window (see, for example, FIG. 8, which shows that the source code is displayed in a first window 700);

wherein said displaying the graphical user interface comprises displaying the graphical user interface in a separate window apart from the first window (see, for example, FIG. 8, which shows that the graphical user interface 850 is displayed in a separate window).

With respect to claim 21 (previously presented), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein the source code is displayed in a first portion of a first window (see, for example, FIG. 8, which shows that the source code is displayed in a first portion of a first window 700);

wherein said displaying the graphical user interface comprises displaying the graphical user interface in a second portion of the first window (see, for example, FIG. 8, which shows that the graphical user interface 850 is displayed in a second portion of the first window).

With respect to claim 22 (previously presented), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein the graphical user interface displays the one or more valid parameter values as a list (see, for example, column 7, lines 22-37, which shows that the valid parameter values are displayed as a list);

wherein said receiving user input to the graphical user interface to select the first parameter value comprises receiving user input to the graphical user interface to select the first parameter value from the list (see, for example, column 7, lines 22-37, which shows that the parameter value is selected from the list).

With respect to claim 23 (previously presented), the rejection of claim 1 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein said programmatically determining the one or more valid parameter values includes programmatically determining one or more property values;

wherein said receiving user input to the graphical user interface to select the first parameter value comprises receiving user input to the graphical user interface to select a first property value;

wherein the first property value is automatically included in the first function call in response to the user input selecting the first property value.

Specifically, Shulman describes that the parameter values correspond to property values (see, for example, column 11, lines 38-50), and Sojoodi likewise describes that the parameter values correspond to attribute or property values (see, for example, column 5, lines 23-51).

With respect to claim 24 (currently amended), the claim is directed a computer-readable memory medium that is analogous to the computer-readable memory medium recited in claim 1

(see the rejection of claim 1 above). Note that a method call such as recited in claim 24 is analogous to a function call such as recited in claim 1.

With respect to claim 26 (currently amended), the claim is directed to a system that corresponds to the computer-readable memory medium recited in claim 1 (see the rejection of claim 1 above). Note that Shulman teaches one or more processors and a display device such as recited in claim 26 (see, for example, FIG. 1).

With respect to claim 27 (currently amended), the claim is directed to a computer-implemented method that corresponds to the computer-readable memory medium recited in claim 1 (see the rejection of claim 1 above).

With respect to claim 31 (currently amended), Shulman teaches a computer-readable memory medium storing program instructions (see, for example, FIG. 1 and the abstract).

Shulman further teaches that the program instructions are executable to display source code of a program, wherein the source code includes a first function call that takes a first input parameter (see, for example, FIG. 7 and column 11, lines 51-63, which shows displaying in source code a first function call 732 that takes a first input parameter 742), but does not explicitly describe that the program instructions are executable to:

display a block diagram of a graphical program, wherein the block diagram includes a plurality of interconnected nodes visually indicating functionality of the graphical program, wherein the block diagram can be compiled into executable code, wherein the plurality of interconnected nodes includes a first node that takes a first input parameter.

Likewise, Shulman further teaches that the program instructions are executable to programmatically determine one or more valid parameter values for the first input parameter of the first function call (see, for example, column 11, lines 38-50, which shows one or more valid parameter values for the first parameter 742, and column 17, lines 27-38, which shows programmatically determining such values), but does not explicitly describe invoking software for a measurement device in order to determine one or more hardware resources of the measurement device, wherein each of the one or more valid parameter values represents a respective hardware resource of the one or more hardware resources.

Nonetheless, in an analogous art, Sojoodi teaches a programming environment for creating a graphical program including a block diagram to control an instrument or measurement device (see, for example, FIG. 6 and the abstract). The instrument or measurement device comprises one or more hardware resources (see, for example, column 4, lines 25-40). The block diagram includes interconnected nodes that take input parameters and represent the functionality of the graphical program (see, for example, column 5, lines 11-42). Sojoodi further teaches invoking software for the measurement device in order to determine one or more hardware resources (see, for example, column 7, lines 3-17). One or more valid parameter values represent the hardware resources in function calls (see, for example, column 5, lines 23-51).

A person of ordinary skill in the art could, with predictable results, apply the teachings of Shulman to a programming environment such as described in Sojoodi, such that the source code described in Shulman represents a graphical program for controlling an instrument or measurement device. A person of ordinary skill in the art would have been prompted to enhance the programming environment of Sojoodi with the teachings of Shulman. Thus, it would have

been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman so as to display a block diagram of a graphical program, wherein the block diagram includes a plurality of interconnected nodes visually indicating functionality of the graphical program, wherein the block diagram can be compiled into executable code, wherein the plurality of interconnected nodes includes a first node that takes a first input parameter. Likewise, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman so as to invoke software for a measurement device in order to determine one or more hardware resources of the measurement device, wherein each of the one or more valid parameter values represents a respective hardware resource of the one or more hardware resources.

Shulman in view of Sojoodi further teaches or suggests that the program instructions are executable to:

display a graphical user interface for selecting a parameter value for the first input parameter of the first node, wherein the graphical user interface for selecting the parameter value visually indicates the one or more valid parameter values (see, for example, FIG. 8 and column 12, lines 17-30, which shows displaying a graphical user interface 850 for selecting a valid parameter value);

receive user input to the graphical user interface to select a first parameter value from the one or more valid parameter values, wherein the first parameter value represents a first hardware resource of the measurement device (see, for example, FIG. 9 and column 12, lines 33-40, which shows receiving user input to select a parameter value 910); and

automatically configure the first node with the first parameter value in response to the user input selecting the first parameter value, wherein automatically configuring the first node with the first parameter value comprises automatically updating the displayed block diagram to visually indicate that the first node receives the first parameter value as input (see, for example, FIG. 9 and column 12, lines 33-40, which shows automatically configuring the first function call 732 to include the parameter value 910).

With respect to claim 32 (previously presented), the rejection of claim 31 is incorporated, and Shulman in view of Sojoodi further teaches or suggests,

wherein automatically configuring the first node with the first parameter value comprises automatically wiring the first parameter value to an input terminal of the first node;

wherein updating the block diagram comprises displaying a wire connecting the first parameter value to the input terminal of the first node.

Specifically, Sojoodi describes that configuring the block diagram comprises wiring a parameter value to an input terminal of a node and displaying the wire (see, for example, column 5, lines 52-67).

6. Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shulman in view of Sojoodi, as applied to claim 1 above, and further in view of U.S. Patent No. 6,370,569 to Austin (already of record, “Austin”).

With respect to claim 12 (currently amended), the rejection of claim 1 is incorporated. Sojoodi describes that the instrument or measurement device comprises an Ethernet device (see, for example, column 4, lines 25-40), but does not explicitly describe,

wherein said determining the one or more valid parameter values comprises determining one or more universal resource locators (URLs) that represent the one or more hardware resources of the measurement device;

wherein the first parameter value comprises a first URL of the one or more URLs;

wherein said automatically including the first parameter value in the first function call comprises automatically configuring the first function call with a reference to the first URL.

Nonetheless, in an analogous art, Austin teaches parameter values comprising uniform resource locators (URLs) that represent resources (see, for example, column 2, lines 30-51). The teachings of Austin enable a program to access data from resources located on a network (see, for example, column 2, lines 20-29).

Therefore, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman and Sojoodi such that said determining the one or more valid parameter values comprises determining one or more universal resource locators (URLs) that represent the one or more hardware resources of the measurement device, such that the first parameter value comprises a first URL of the one or more URLs, and such that said automatically including the first parameter value in the first function call comprises automatically configuring the first function call with a reference to the first URL. As Austin suggests, such an implementation would enable programs created in the programming environment of Shulman and Sojoodi to access data from resources located on a network.

7. Claims 33 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shulman in view of Sojoodi, as applied to claim 1 above, and further in view of U.S. Pub. No. 2003/0058280 to Molinari et al. (already of record, "Molinari").

With respect to claim 33 (new), the rejection of claim 1 is incorporated. Shulman in view of Sojoodi does not explicitly describe,

wherein the measurement device includes a plurality of channels;

wherein invoking the software for the measurement device in order to determine the one or more hardware resources of the measurement device comprises invoking the software for the measurement device in order to determine the plurality of channels.

Nonetheless, in an analogous art, Molinari teaches a measurement device that includes a plurality of channels (see, for example, paragraph [0120]). Molinari further teaches invoking software for the measurement device in order to determine the plurality of channels (see, for example, paragraph [0150]), thus allowing the user to identify and choose from all the channels that the measurement device provides (see, for example, paragraph [0151]).

Therefore, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Shulman and Sojoodi such that the measurement device includes a plurality of channels and that invoking the software for the measurement device in order to determine the one or more hardware resources of the measurement device comprises invoking the software for the measurement device in order to determine the plurality of channels. As Molinari suggests, such an implementation would allow the user to identify and choose from all the channels that the measurement device provides.

With respect to claim 34 (new), the rejection of claim 1 is incorporated. Shulman in view of Sojoodi does not explicitly describe that said invoking the software for the measurement device in order to determine the one or more hardware resources of the measurement device is performed in response to the user input requesting to select a parameter value.

Nonetheless, in an analogous art, Molinari teaches invoking software for a measurement device in order to determine one or more hardware resources of the measurement device (see, for example, paragraph [0150]). The invoking is performed in response to user input requesting to select a data source (see, for example, paragraph [0149]).

A person of ordinary skill in the art could, with predictable results, implement the teachings of Shulman and Sojoodi such that said invoking the software for the measurement device in order to determine the one or more hardware resources of the measurement device is performed in response to the user input requesting to select a parameter value, such as suggested in Molinari. A person of ordinary skill in the art would have been prompted, for example, to ensure that the valid parameter values are up to date when the user requests to select a parameter. Thus, the claimed subject matter would have been obvious to those of ordinary skill in the art at the time the invention was made.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is 571-272-3707. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Yigdall
Primary Examiner
Art Unit 2192

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